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PROJECT COMPLETION REPORT

KOREA

FIRST AND SECOND NATIONAL URBAN LAND  
DEVELOPMENT AND HOUSING PROJECTS  
(LOANS 1980 AND 2216-KO)

MAY 23, 1990

Infrastructure Division  
Country Department II  
Asia Regional Office

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Office of Director-General  
Operations Evaluation

May 23, 1990

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Completion Report on Korea - First and Second  
National Urban Land Development and Housing Projects  
(Loans 1980-KO and 2216-KO)

Attached, for information, is a copy of a report entitled "Project Completion Report on Korea- First and Second National Urban Land Development and Housing Projects (Loans 1980-KO and 2216-KO)" prepared by the Asia Regional Office. No audit of these projects have been made by the Operations Evaluation Department at this time.

Attachment



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## KOREA

### FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT AND HOUSING PROJECTS (Loans 1980 and 2216-KO)

#### PROJECT COMPLETION REPORT

#### Preface

This is a combined Project Completion Report (PCR) for the First and Second National Urban Land Development and Housing Projects (Loans 1980-KO and 2216-KO). The PCR considers both projects simultaneously since they had similar objectives and were implemented sequentially by the same agencies, the Korea Land Development Corporation (KLDC) and the Korea National Housing Corporation (KNHC). Loan 1980-KO was approved on April 20, 1981 for US\$90 million and was closed on June 30, 1986, 18 months later than planned due to an increased scope of works and some implementation delays. Due to savings under the project, US\$14.6 million of the loan was cancelled in 1984 at Government's request and US\$4.0 million was cancelled at loan closing. Loan 2216-KO was approved on December 14, 1982 for US\$100 million and was closed on March 31, 1987 after being fully disbursed.

This report was prepared by the Asia Country Department II Infrastructure Division, based on a draft and data provided by the implementing agencies as well as information in the project files. The PCR was discussed with the implementing agencies and government staff during a visit in May 1988 and their comments were incorporated. The valuable assistance provided by the Korean Government and project staff met during the preparation of this report is gratefully acknowledged.

This PCR was read by the Operations Evaluation Department (OED). The draft PCR was sent to the Borrower for comments. However, they had no comments to make.

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PROJECT AND SECOND NATIONAL URBAN LAND DEVELOPMENT AND  
HOUSING PROJECTS (Loans 1980 and 2216-80)

PROJECT COMPLETION REPORT

BASIC DATA SHEET

KEY PROJECT DATA

<u>Item</u>	<u>Appraisal expectation</u>	<u>Actual or current estimate</u>
Total Project Cost (Billion Won)	156.1	244.3
Overrun (%)	-	56.3
Total Project Cost (US\$ million)	240.0	309.4
Overrun (%)	-	28.9
Loan/Credit Amount (US\$ million)	90.0	90.0
Disbursed )	-	71.3
Cancelled )	-	18.7
Repaid to )	-	-
Outstanding to )	-	-
Date Physical Components Completed	06/30/84	12/31/85
Proportion Completed by Above Date (%)	100.0	100.0
Proportion of Time Underrun or Overrun (%)	-	-
Economic Rate of Return (%)	16.5	14.2
Financial Performance	good	good
Institutional Performance	good	good

OTHER PROJECT DATA

<u>Item</u>	<u>Original Plan</u>	<u>Revisions</u>	<u>Actual or Est. Actual</u>
First Mention in Files or Timetable	/ /	-	01/25/80
Government's Application	/ /	-	01/25/81
Negotiations	/ /	-	03/13/81
Board Approval	/ /	-	04/30/81
Loan/Credit Agreement Date	/ /	-	05/13/81
Effectiveness Date	/ /	-	08/11/81
Closing Date	12/31/84	12/31/83	06/30/86
Borrower	The Republic of Korea		
Executing Agency	1) The Korea Land Development Corporation		
	2) The Korea National Housing Corporation		
Fiscal Year of Borrower	January 1-December 31		
Follow-on Project Name	Second National Urban Land Development and Housing Project		
Loan/Credit Number	Loan 2216-80		
Amount (US\$ million)	100.0		
Loan/Credit Agreement Date	December 20, 1982		

MISSION DATA

<u>Item</u>	<u>Month, Year</u>	<u>No. of Weeks</u>	<u>No. of Persons</u>	<u>Man-weeks</u>	<u>Date of Report</u>
Identification	11/76	3.5	2	7	12/08/76
Preparation I	03/77	1.5	1	1.5	05/09/77
Preparation II	10/79	2.0	1	2	11/19/79
Preappraisal I	02/80	2.0	3	6	04/11/80
Preappraisal II	05/80	3.0	6	18	06/25/80
Appraisal	09/80	3.0	3	9	04/09/81
Total		15.0		43.5	
Supervision I	04/81	2.0	3	6	05/07/81
Supervision II	09/81	2.0	3	6	10/07/81
Supervision III	01/82	1.0	3	3	03/05/82
Supervision IV	03/82	1.5	3	4.5	05/14/82
Supervision V	11/82	1.5	3	4.5	02/01/83
Supervision VI	10/83	1.0	3	3	11/28/83
Supervision VII	03/84	1.5	1	1.5	05/15/84
Supervision VIII	11/84	1.0	1	1	12/21/84
Completion	09/85	0.5	1	0.5	11/04/85
Total		12.0		32.0	

COUNTRY EXCHANGE RATES

<u>Name of Currency (abbreviation)</u>	<u>Won</u>	<u>( W )</u>
Year:		
Appraisal Year Average	1980	Exchange Rate: US\$1 = 607
Intervening Years Average	1981-84	US\$1 = 748
Completion Year Average	1985	US\$1 = 870

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FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT AND  
HOUSING PROJECTS (Loans 1986 and 2216-KO)

PROJECT COMPLETION REPORT

BASIC DATA SHEET

KEY PROJECT DATA

<u>Item</u>	<u>Appraisal expectation</u>	<u>Actual or current estimate</u>
Total Project Cost (Billion Won)	233.8	302.4
Overrun (%)	-	29.3
Total Project Cost (US\$ million)	316.0	363.0
Overrun (%)	-	14.9
Loan/Credit Amount (US\$ million)	100.0	100.0
Disbursed )	-	100.0
Cancelled )	-	-
Repaid to )	-	-
Outstanding to )	-	-
Date Physical Components Completed	12/31/85	12/31/86
Proportion Completed by Above Date (%)	100.0	100.0
Proportion of Time Underrun or Overrun (%)	-	-
Economic Rate of Return (%)	12.5	22.4
Financial Performance	good	good
Institutional Performance	good	good

OTHER PROJECT DATA

<u>Item</u>	<u>Original Plan</u>	<u>Revisions</u>	<u>Actual or Est. Actual</u>
First Mention in Files or Timetable	/ /	-	05/21/81
Government's Application	/ /	-	05/29/81
Negotiations	/ /	-	09/20/82
Board Approval	/ /	-	12/14/82
Loan/Credit Agreement Date	/ /	-	12/20/82
Effectiveness Date	/ /	-	05/31/83
Closing Date	09/30/86	-	03/31/87
Borrower	The Republic of Korea		
Executing Agencies	1) The Korea Land Development Corporation 2) The Korea National Housing Corporation 3) The Ministry of Construction (National Housing Fund)		
Fiscal Year of Borrower	January 1-December 31		
Follow-on Project Name	1) Urban Land Development Project 2) Housing Finance Sector Project		
Loan/Credit Number	1) Loan 2704-KO, 2) Loan 2853-KO		
Amount (US\$ million)	1) 150.0, 2) 150.0		
Loan/Credit Agreement Date	1) July 14, 1986, 2) August 6, 1987		

MISSION DATA

<u>Item</u>	<u>Month, Year</u>	<u>No. of Weeks</u>	<u>No. of Persons</u>	<u>Man-weeks</u>	<u>Date of Report</u>
Preappraisal	01/82	3.0	5	15.0	03/12/82
Appraisal	03/82	4.0	5	20.0	11/15/82
Total		7.0		35.0	
Supervision I	10/83	1.5	3	4.5	11/26/83
Supervision II	03/84	1.5	1	1.5	05/15/84
Supervision III	11/84	1.0	1	1.0	12/21/84
Supervision IV	09/85	1.0	1	1.0	11/04/85
Completion	03/87	0.1	1	0.1	04/21/87
Total		5.1		8.1	

COUNTRY EXCHANGE RATES

<u>Name of Currency (abbreviation)</u>	<u>Won</u>	<u>(%)</u>
Year:		
Appraisal Year Average	1982	Exchange Rate: US\$1 = 731
Intervening Years Average	1983-85	US\$1 = 817
Completion Year Average	1986	US\$1 = 881

KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT AND  
HOUSING PROJECTS (Loans 1980 and 2216-KO)

PROJECT COMPLETION REPORT

Highlights

i. The projects were primarily designed to provide affordable housing to low-income groups in Korea's urban areas through the construction of housing by the Korea National Housing Corporation (KNHC), using land developed by the Korea Land Development Corporation (KLDC). The projects were also expected to improve the policy and institutional framework of the Korean housing sector, with a focus under Loan 1980 on strengthening KLDC's capability to provide serviced residential sites and, under Loan 2216, on supporting the development of the National Housing Fund (NHF) with a view to establishing a viable financial intermediary for the public housing sector (paras. 2.2-2.4). The projects financed: (a) the development for residential and commercial purposes of 1.75 million pyung (py) of land under Loan 1980 and 1.43 million py under Loan 2216 in selected sites throughout the country;<sup>1/</sup> (b) construction of 8,362 housing units for lower-income groups in ten urban areas under Loan 1980 and 10,100 housing units under Loan 2216; and (c) technical assistance, including advisory services and training, to KLDC, KNHC and the Ministry of Construction (MOC), the main policymaking body in the sector, for institutional strengthening and the preparation of sector studies aimed at policy development.

ii. The projects succeeded in accomplishing their main objective of providing new housing affordable to lower-income families, and were notable for KLDC's success in significantly surpassing the original land development targets (paras. 3.7-3.11). Institutional strengthening under the projects has led to enhanced roles for KLDC and KNHC in the sector and the development of the NHF as a key agency in the provision of finance for lower income housing development. KLDC particularly benefitted from improved, more analytical procedures for site evaluation and selection, based on financial and economic criteria. Implementation of recommendations of sector studies carried out under the projects has resulted in both improved sector policies, particularly with respect to addressing the housing problems of the poor through development of rental housing, and a more comprehensive data system to permit better monitoring and analysis of sector activities (paras. 3.17-3.19). As a result of experience gained under the projects, a framework for project identification, preparation, appraisal and implementation was established which allowed the Bank to support two further projects on a programmatic basis--one in land development and the other in housing finance.

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<sup>1/</sup> One pyung equals 3.307 sq. m. or 35.586 sq. ft.



iii. The major problem in project implementation was the lack of a satisfactory mechanism to promote consultation and coordination between KLDC and KNHC, the two main executing agencies (para. 4.5). Housing construction was occasionally delayed by disagreements between the two on the suitability of land developed by KLDC for low-cost housing. The cause of this contention can be traced to the different objectives and interests of the two agencies, with KLDC established to provide large areas of developed land for residential and industrial purposes, at as low a price as possible, and KNHC to provide low-income housing which first of all must be marketable. KNHC did, however, meet its construction targets by developing some sites itself. This problem might have been avoided had sufficient authority and more carefully defined roles been assigned to the Liaison Committees established under the projects to coordinate the work of the two agencies.

iv. The development of NHF has also been somewhat different than originally expected (para. 4.6). While NHF has grown rapidly, it has not been assigned responsibility for project appraisal and supervision. This, however, has not been a problem to date as NHF is able to obtain these services from another institution at reasonable cost. NHF has been operated in a financially viable manner and has gradually improved the targeting of its loans to lower-income buyers. The latest measures in this respect have been introduced in conjunction with the Bank-assisted Housing Finance Sector Project (Loan 2853-KO).

v. Project unit costs under both projects were substantially below expectations due to low bids from contractors due to intense competition to obtain work during the recessionary period of the early 1980s (para. 3.20). KLDC used some of these savings to develop additional sites, but US\$14.6 million of Loan 1980 was cancelled in 1984 to reflect savings in housing costs and another US\$4.0 million was cancelled at loan closing. Loan 2216 was fully disbursed.

vi. Regarding cost-recovery performance, the actual cost of land development was recovered by KLDC, which sold commercial and middle-income residential plots developed under the project at market prices to subsidize land sold to KNHC for low-income housing (para. 5.5). KNHC recovered appropriate costs of housing construction through the sale of those units to low-income buyers. Sales performance was good under both projects, except for core houses which proved unattractive to buyers who, because of rising incomes and the increased affordability of larger apartments, preferred the larger units.

vii. The project objective of providing housing units to lower-income families, defined as those in the second quartile of the urban income distribution under the first project and the 15th to 50th percentiles of the income distribution in the second project, seems to have been achieved (para. 5.6). According to KNHC data, 83% of housing units constructed under Loan 1980 were affordable to buyers below the 29th percentile, with the rest affordable to those below the 39th percentile. Under Loan 2216, 78% of all units were

affordable to families below the 29th percentile, and the remainder were affordable to households at various income levels below the 50th percentile of the urban income distribution.

viii. Overall, the projects were successful in addressing deficiencies in housing availability and housing policies, and in strengthening the abilities of the housing sector institutions, especially of KLDC. The economic performance of the two projects likewise proved satisfactory, with rates of return of 14% and 22%, respectively (para. 6.2).

## KOREA

### FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT AND HOUSING PROJECTS (Loans 1980 and 2216-KO)

#### Project Completion Report

#### I. INTRODUCTION

1.1 Since the early 1970s, Korea's urban population has been increasing rapidly, in tandem with the country's impressive economic development. Between 1970 and 1980, the urban population increased by 93%, much higher than the 20% increase of the national population overall. In 1980, some 60% of the total population lived in urban areas, and this is projected to increase to 75% by 1991. At the same time, average household size has been decreasing, from 5.37 persons per household (p/hh) in 1970, to 4.7 p/hh in 1980 and 4.23 p/hh in 1985. The declining household size resulted in a particularly rapid growth in the number of urban households, which increased by an average 7% p.a. during 1970-85, compared to the national average of 3% p.a. This in turn resulted in an acute shortage of available residential sites and housing units, particularly in newly developed small- and medium-sized cities. The housing shortage ratio (i.e., 1-housing units/households x 100) increased from 25.6% in 1975 to 28.8% in 1980 and to 30.2% in 1985, despite an investment of 5.3% of GNP for the construction of 1.14 million housing units by the public and private sectors in 1976-80 and 5.06% of GNP in 1981-85 for the construction of 1.02 million additional units. Aside from the rapid increase in the number of households, part of the housing problem was due to widespread housing demolition during the 1970s when government programs for industrialization and urbanization were being emphasized. Almost 900,000 housing units were demolished in the course of the decade.

1.2 In 1979-80, the Government responded to the accelerating housing shortage by developing specific measures to increase the output of both the public and private housing sectors, and by issuing in October 1980 a Master Plan for Public Housing Construction and National Urban Land Development. This comprehensive plan included quantitative targets for housing construction and investment in the sector, expansion of the public sector role in housing, and measures to reduce construction costs and increase the supply of housing finance. The Plan was also important by including a program for the provision of housing to the low-income population, including measures to stabilize land prices. In this, the Government sought to further its goal of establishing social equity by mitigating the housing shortage.

1.3 Investment allocations under the Fifth Five-Year Economic and Social Development Plan (1982-86) buttressed the Housing Master Plan by giving housing first priority in its strategy to meet the basic needs of urban dwellers and to improve the quality and availability of urban services. The Plan

included investment of 5.33% of GNP in new housing and annual production of 286,000 units (124,000 by the public sector and 162,000 by the private sector), with 92% of the units slated for urban areas.

## II. PROJECT PREPARATION AND APPRAISAL

### A. Background

2.1 The Bank and the Government began discussing the possibility of an urban housing project in 1975, but differences between the two regarding housing policies prevented further action. However, with the issuance of the Housing Master Plan and the Government's heightened interest in taking a more dominant role in the housing sector, agreement was reached on a mutually satisfactory approach to housing development. Experience gained under two previous Bank-supported regional development projects in the Gwangju Region (Loans 1070 and 1758-KO), which both included substantial housing components, reinforced Government's commitment to the housing project by demonstrating the feasibility of the approaches proposed. The project was one component of the Government's development strategy to place increased emphasis on expanding the benefits of economic growth, both geographically throughout the country and vertically to income groups which had fallen far behind in obtaining the basic amenities for living, such as housing and community facilities. The project was prepared by staff from the Korea Land Development Corporation (KLDC), the Korea National Housing Corporation (KNHC), and the Ministry of Construction (MOC) and appraised by the Bank in September 1980. The project loan for US\$90 million was approved in April 1981.

2.2 The project had four primary objectives:

- (a) to develop the capabilities of KLDC to provide serviced sites on a large scale;
- (b) to provide affordable housing to the second quartile of the income distribution through KNHC;
- (c) to establish a framework for project identification, preparation, appraisal and implementation in the housing sector so that the Bank could support future projects on a programmatic basis; and
- (d) to assist in establishing a policy framework for the Korean housing sector.

2.3 Preparation of the Second Urban Land Development and Housing Project began shortly after the first project was approved in order to provide further support to objectives sought under the Fifth Five-Year Plan and to reinforce and expand the institution building initiated under the first project. Particular emphasis was placed on development of the National Housing Fund (NHF) which was established in July 1981 to raise and facilitate the supply of housing finance and thus enable the Government to carry out its housing construction program under the Five-Year Plan. Rather than focussing on details of Government's housing construction program, the second project

emphasized reaching agreements between Government and the Bank on the processes, principles and criteria by which land and housing development programs and projects would be prepared and implemented.

2.4 In keeping with this orientation, the project was intended to:

- (a) assist in the rationalization of roles and functions and strengthen the housing and land development institutions in the public sector. Specifically, NHF would assume a more prominent role in long-term housing finance, absorbing functions of the previous public sector low-income housing finance program managed by the Korea Housing Bank and the foreign loan program previously managed by KNHC. In addition, KNHC would be encouraged to focus on housing construction and KLDC on developing land for industrial sites, residential areas and low-cost housing. The basis for formulating housing programs and determining the housing mix was to be improved, and a coordinated and rationalized system for city and site selection was to be developed and implemented;
- (b) support the development of NHF with a view to establishing a viable financial intermediary with a capability for project appraisal and supervision; and
- (c) support the policies and programs for improving the delivery of housing to lower-income families by financing the development of land and housing by KLDC, KNHC, housing cooperatives and local authorities. The primary target income group was the 15th to the 50th percentile of the urban household income distribution.

2.5 The second project was prepared by the same agencies as the first project, appraised in March/April 1982 and the project loan (2216-KO) for US\$100 million was approved on December 16, 1982.

#### B. Project Descriptions

2.6 Each project had three components--land development, housing construction and technical assistance.

2.7 Land Development. Under the first project KLDC was expected to provide servicing of about 1.75 million pyung <sup>1/</sup> (py) of urban land, including about 11,300 plots for low- and middle-income families. In the second project, it was expected to develop about 1.43 million py, including land for some 22,900 plots for low and middle-income housing. Community facilities and other services were also to be provided in the developed areas. Land development was to be carried out in 10 sites in the first project and 14 sites in the second project. At each site, part of the land (50% of the residential area under the first project and 40% under the second project) was earmarked for low-income households and sold to KNHC. KLDC was to sell the remaining

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<sup>1/</sup> One pyung is equivalent to 3.307 sq. m or 35.586 sq. ft.

land for commercial use or as residential plots for the middle-income populace. The profits gained through the open market sale of this land was to be utilized to lower the sale price of the low-income plots, thus cross-subsidizing them.<sup>2/</sup>

**2.8 Housing Construction.** Under the first project, KNHC was expected to construct 8,562 housing units on land developed by KLDC for the second quartile of the urban income distribution. In the second project, it was expected to build about 10,100 housing units for the 15th to 50th percentiles of the urban household income distribution. In the second project, KLDC was expected to provide 10,300 middle-income serviced lots and, in cooperation with the local governments, to support construction of 2,500 housing units by housing cooperatives in specified areas.

**2.9** The housing mix in the first project was expected to be 40% expandable core houses, 30% row houses and 30% walk-up apartments. Based on experience gained under the earlier project (para. 3.4), the housing mix under the later project was changed to 10% core houses, 30% row houses and 60% apartments. In terms of project beneficiaries, 35% of housing units under Loan 1980 were intended for families in the 20th to 29th percentiles, 50% for the 30th to 39th percentiles, and 15% for the 40th to 50th percentiles. Under Loan 2216, 30% of the units were intended for the 15th to 19th percentiles, 50% for the 20th to 39th percentiles, and 20% to the 40th to 50th percentile of the income distribution. The units constructed under the project were expected to be affordable, requiring a maximum of 30% of monthly household income for mortgage payments. Table 1 summarizes project targets.

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<sup>2/</sup> Middle-income families were defined as those above the 50th percentile.

**Table 1: PROJECT HOUSING UNIT AND INCOME TARGETS**

Loan No.	Unit Size (pyung)	Housing Mix	No. of Units	Income Bracket (percentile)
1980-KO	8	core house	1,717	20-29th
	10	core house	1,717	30-39th
	10	row house	1,244	20-29th
	13	walk-up apt.	2,642	30-39th
	15	row house	1,244	40-50th
			<u>8,564</u>	
2216-KO	12	core house	1,010	15-19th
	15	row house	3,030	20-39th
	15	walk-up apt.	3,030	15-39th
	17	walk-up apt.	3,030	20-50th
			<u>10,100</u>	

**2.10 Technical Assistance.** The first project supported on-the-job and overseas training of KLDC and KNHC staff in areas such as real estate planning and management, engineering, construction and finance. Under the second project, this was expanded to include training for the staff of MOC, the agency primarily responsible for housing sector policy and for managing NHF. Assistance was also provided under both projects for the preparation of subsequent projects, monitoring and evaluation of KLDC and KNHC operations, and the execution of housing sector and policy studies.

### **III. PROJECT IMPLEMENTATION**

#### **A. Effectiveness**

**3.1** The first project was presented to the Bank's Board on April 30, 1981, and the Loan Agreement was signed on May 13, 1981. After the signing of a Subsidiary Loan Agreement between the Government and both KLDC and KNHC, which was a condition of loan effectiveness, the Loan became effective on August 11, 1981.

**3.2** The second project was presented to the Bank's Board on December 14, 1982, and the Loan Agreement was signed on December 20, 1982. Signing of Subsidiary Loan Agreements between the Government and both KLDC and NHF, which was a condition of loan effectiveness, took place on February 9, 1983. In order to enhance the function of NHF, the loan to KNHC was channeled through the National Housing Fund. However, due to questions raised regarding NHF's

qualifications as a legal entity empowered to sign the Subsidiary Loan Agreement, the Loan Agreement had to be amended prior to effectiveness on May 31, 1983.

#### B. Revisions to the Projects

3.3 The first project was originally intended to develop land and housing in ten areas spread throughout the country. However, because bid prices were about 25% lower than expected due to intense competition among contractors for work during the economic slowdown of the early 1980s, KLDC was able to increase the project's land development area with the addition of three more sites (Gwangju-Yomju, Chongju-Shinbong II, and Seoul-Gudok). The Kunsan site was also replaced by one in Busan due to expected weak demand.

3.4 The housing mix and housing sites and sizes were also modified. The housing mix for low-income units was changed from a 40:30:30 ratio of core:row:apartment houses to 20:30:50 due to (a) weak demand for core houses, indicated by a survey and the disappointing sales performance of core houses, only 19% of which were sold by November 1983; and (b) the higher cost of core houses which, on a cost per pyung basis, were a third more expensive to build than apartments since they required more scarce and expensive land than did apartments. At the time of project formulation, core houses represented a new type of housing unit which closely approximated the single-family dwelling preferred by Koreans, but at a cost affordable to the lowest income group. In the interim, however, incomes in Korea had risen faster than construction costs, resulting in a shift in demand to larger apartment units. Although the poor sales record for core houses may have been partly due to an unaggressive marketing strategy and a design modification (from semi-detached houses to less desirable one-story row houses), the enhanced affordability of apartments due to design changes caused the Bank to approve the changed housing mix in January 1984. This included a change in the housing unit size which, because of improved designs and construction techniques for some housing configurations, could be increased to 17 py and 20 py for some apartments. Some construction sites were also changed due to KNHC's doubts about the marketability of certain sites developed by KLDC. Of the 13 sites developed by KNHC, 9 were provided by KLDC.

3.5 Similar changes were introduced under Loan 2216. The land development area was increased by 45% with the addition of two extra sites in Gwangju and Kimhae. In all, 16 sites were developed by KLDC. Of the 12 sites developed by KNHC under the project, 10 were developed by KLDC and 2 by KNHC itself. The housing mix was likewise changed from a 10:30:60 mix of core:row:apartment houses to 0:20:80. In actuality, 88% of project housing was in the form of apartment units. This was again due to changing demand patterns. Also, the original plan to build 2,500 houses for housing cooperatives in Daejon and Euijongbu was not realized since Government determined that the typical income of a prospective cooperative member was above that of the project target group. A comparison of planned and actual implementation sites is given in Annex 1 and the attached maps.



## C. Project Progress

### Land Development

3.6 Implementation of the first project was originally scheduled for a three-year period, mid 1981-84, but was not completed until December 1985 due to the increase in project scope and a somewhat overoptimistic implementation schedule for housing construction. The second project was also scheduled for a three-year period (late 1982 to end 1985) and was completed in December 1986, one year later than expected. Planned and actual implementation schedules are shown in Annex 2.

3.7 Loan 1980. Some 2.48 million py were developed under the project, 40% more than expected, largely due to savings arising from low bid prices. Implementation by KLDC was both efficient and timely. Land development was carried out in two phases, with the first four sites identified prior to project start-up and the remaining nine selected thereafter on the basis of criteria agreed between the Bank and KLDC. Sites were selected in cities with housing shortage ratios of greater than 30% and populations above 100,000. The Seoul-Goduk site also presented an opportunity to undertake pollution abatement measures for the Han River.

3.8 Land was developed in accordance with either the Public Managed Development method (PMD) or the Land Readjustment (LR) scheme. The PMD is a comprehensive procedure based on related laws, such as the City Planning Law, the Housing Site Development Promotion Law (HSDP), the Housing Construction Promotion Law and the Industrial Estate Development Promotion Law. Under PMD, the public authority purchases the entire area proposed for development and sells the land after development to the actual users. This procedure prevents the land from becoming a target of profiteering, but is unpopular with landowners and local officials due to the long time needed and difficulty involved in providing compensation for the land. Under LR, however, the public authority develops the land in participation with the landowner. In the first project, of the 13 sites developed, 8 were under the PMD.

3.9 Of the total area developed under the project, 62% was for residential purposes, 4% went to commercial development and 34% was for public uses such as roads and parks. Overall, 27% of the land developed was sold for low-income housing. No problems were encountered in selling the remaining land.

3.10 KLDC and Seoul City proposed to link the sewerage system from the Seoul-Goduk site to off-site trunk interceptor sewers and treatment facilities being built by Seoul City under the Han River Comprehensive Development Plan. However, the on-site treatment facilities and disposal scheme initially proposed did not meet recently introduced regulations regarding effluent quality under the Environmental Preservation Law. In order to indirectly obtain disbursement for part of the estimated foreign exchange costs of the off-site facilities, KLDC proposed that the Bank raise the disbursement percentage on the remaining civil works contracts for this site, already ongoing, from the project-wide level of 46% to 60%, and the Bank agreed.

3.11 Loan 2216. Some 2.08 million py were developed under the second project, 45% more than expected at appraisal, due to the addition of two sites. All development followed the PMD method, except for one site. Of the total area developed, 61% was for residential purposes, 1.5% for commercial use, and the remainder went to public uses. Of the total land developed, 25% went to the low-income target group. Implementation was again satisfactory, and sale of the land developed presented no problems. Land development under the two projects, broken down by site and use, is given in Annex 3.

### Housing Construction

3.12 Loan 1980. A total of 8,620 housing units were constructed under the project, about 60 more than expected at appraisal. Overall, about 39% of the units were larger than planned due to the change in the housing unit size (para. 3.4). Housing construction was initially delayed by four to nine months while KNHC carried out studies on the housing mix to assess demand for various types of units in light of the slowdown in the economy. The timing and composition of the housing program was adjusted as a result of these studies. Construction was delayed by another six to nine months over the course of the project due to disagreements between KNHC and KLDC over the appropriateness of sites developed for low-income housing, KNHC's decision to develop some sites itself, and the need for further studies to justify changing the housing unit mix. Thereafter, construction progressed smoothly.

3.13 Loan 2216. A total of 10,124 housing units were constructed on 12 sites, about equal to the target of 10,100. As in the earlier project, disagreements between KLDC and KNHC over site selection and KNHC's reservations about the proposed housing mix and the marketability of core houses led to somewhat slower than expected implementation during the project's early years. At completion, about 30% of the units constructed under the project were larger than 19 py, compared to appraisal expectations that no unit would be larger than 17 py. Annex 4 gives a breakdown of housing units constructed under the projects by site and unit size, and compares actual accomplishments with planned targets.

3.14 Following resolution of questions relating to the housing mix and housing unit size, housing sales performance under both projects was satisfactory.

### Technical Assistance

3.15 The projects included technical assistance for:

- (a) Staff Training. On-the-job and overseas training for KLDC and KNHC staff (and MQC staff under Loan 2216) in areas such as housing finance, real estate development and management, engineering and construction;
- (b) Project Preparation. Feasibility studies and detailed engineering for future projects;

(c) Monitoring and Evaluation. Survey and analysis to determine the effectiveness of the land development and housing activities undertaken; and

(d) Preparation of Sector Studies.

3.16 Staff training was carried out as envisioned. Under both projects, short-term study tours at foreign universities and institutions (including Harvard) were provided to a total of 94 MOC, KNHC and KLDC staff members from 1982 to 1986.

3.17 Housing sector studies under both projects were carried out by the Korea Research Institute for Human Settlements (KRIHS), with the help of consultants and local universities. Studies under both projects were directed at Government's sectoral policies regarding a broad range of issues. The Housing Policy Development Study financed under Loan 1980 and issued in April 1983 incorporated systematic reviews of issues and problems in the areas of housing demand, housing finance, urban renewal, the role of the private sector in the provision of housing, and data management problems in the sector. Based on the study's recommendations, the Government formulated a rental housing policy to directly address the housing problems of the poor and improved its housing data system. Government staff also gained a clearer understanding of the nature of the housing shortage problem in Korea (particularly in urban areas), a greater focus on the affordability and cost recovery aspects of public housing, and a better understanding of the role of housing finance in making housing more affordable to the lower-income population.

3.18 Further policy studies included in a Study on Housing Problems and Policy Developments in Korea (issued in October 1985 and financed under Loan 2214) considered the incentives/disincentives of current sector policies and related topics such as rental housing and energy efficiency in housing construction methodology. As a result of these studies, MOC was able to formulate clearer, more efficient policies regarding rental dwellings and housing taxation and finance. MOC's interest in these studies and the need to improve its policymaking capacity was indicated by its implementation of a comprehensive training program for key officials and agencies involved in the formulation and implementation of housing policy.

3.19 Studies carried out under the two projects also raised the Government's awareness of land development and housing finance as the major remaining constraints in the sector and led to the preparation of two subsequent projects, the Urban Land Development Project (Loan 2704-KO) in 1986 and the Housing Finance Sector Project (Loan 2853-KO) in 1987. The projects therefore fulfilled the objective of strengthening the sector institutions to a level where the Bank could support projects on a programmatic basis.

#### D. Costs

3.20 The first project had a total cost of W 244 billion or US\$309.4 million, which was 57% higher than the appraisal estimate in terms of won

(W 156.1 billion) and 29% higher than estimated in US\$ terms (US\$240 million). Cost increases were mainly due to the increased scope of works and additional costs for land acquisition. KLDC developed 42% more land than expected at appraisal, and 56% of the cost of this development represented land acquisition. Despite the overall increase in project costs, unit costs were lower than expected due to low bids from contractors due to intense competition to obtain work during the period of recession and price stabilization. Thus, unit costs per pyung of land developed were 63% of the estimate, while housing construction costs were 71% of the estimate. Results under the second project were similar. The total project cost was W 302.4 billion (US\$363.0 million), which was 29% higher than the appraisal estimate in terms of won (W 233.8 billion) and 15% higher than the US\$316.0 million estimated at appraisal. At the same time, the development area was 45% greater than originally expected. Unit costs were 85% of the estimate for land development and 67% of the estimate for housing construction. A comparison of estimated and actual costs is given in Annex 5.

#### E. Disbursement

3.21 Due to the economic slowdown in real estate in the early 1980s, the increase in quantitative targets under the project and implementation delays (para. 3.12), disbursement of Loan 1980 was slower than expected and loan closing had to be extended by 18 months, from December 31, 1984 to June 30, 1986. At Government's request, US\$14.66 million of the loan was cancelled in May 1984 to reflect savings in housing construction costs and another US\$4.0 million was cancelled in March 1986. Loan 2216-KO also disbursed somewhat more slowly than expected, although loan closing was extended by only six months from September 30, 1986 to March 31, 1987. As expected, disbursement of both loans was faster than the disbursement profile. A comparison of the planned and actual disbursement of the loans is shown in Annex 6 and loan disbursement by category is given in Annex 7.

#### F. Procurement

3.22 All civil works contracts under the project were carried out satisfactorily, following international competitive bidding (ICB) procedures. Despite ICB, all contracts were awarded to local firms since no foreign firms participated in the prequalification process.

#### G. Reporting

3.23 Under both projects, quarterly reports covering the status of project implementation, procurement, sales, etc. were submitted regularly to the Bank. The reports were of good quality, were provided on time and allowed close monitoring of project implementation. Annual project audit reports were prepared on a timely basis by independent auditors, satisfactory to the Bank. Although an audit of NHF accounts which was required under Loan 2216 was not submitted, the requirement was fulfilled by the auditing of NHF's accounts by the Government's Board of Inspection and Audit whose comments were sent to the Bank.

#### H. The Role of the Bank

3.24 The participation of the Bank in the identification and preparation of the projects reinforced and invoked policy shifts and technical innovations in the public housing sector, especially for the low-income group. In addition, the Bank's involvement was responsible for initiating studies which recommended measures to improve the housing sector further and prompted changes in the Government's subsequent policy.

3.25 All components of the projects were supervised by the Asia Country Department II Infrastructure Division (formerly called the Urban and Water Supply Division of the East Asia and Pacific Regional Office). During the implementation of both projects, a total of 8 supervision missions visited Korea; an average of about 8 staff-weeks per year was spent in supervision efforts in the field. The quality of the working relationship between the Bank and the implementing agencies was excellent through the life of the projects.

#### IV. INSTITUTIONAL ARRANGEMENTS AND PERFORMANCE

4.1 The Land Development and Housing Project was carried out by KLDC and KNHC, under the coordination of MOC's Housing Bureau (HB), the agency chiefly responsible for national housing policy and plans. A senior-level Liaison Committee (called a coordination working group under the first project) chaired by the HB Director-General and including representatives of the implementing agencies was directly responsible for coordination. KLDC was responsible for acquiring and developing the land, marketing the commercial and residential areas, and ensuring that an adequate supply of reasonably-priced, serviced land was available for low-income needs. For projects undertaken through PMD, KLDC had sole responsibility for land development, for LR projects, responsibility was shared with the respective city governments. KNHC was responsible for the construction and sale of housing for low-income families. The land required by KNHC was to be purchased from KLDC at cross-subsidized prices. Institutional responsibilities under the second project were similar, although mortgages for low-income families were provided by the Korea Housing Bank (KHB) under the first project, but by NHF under the second project.

4.2 Both KLDC and KNHC are government corporations operating under the guidance of MOC. KHB is the principal government agency for extending housing loans to house purchasers and is answerable to the Ministry of Finance. NHF was established in 1981 to facilitate the provision of housing finance for the Government's National Housing Construction Plan and particularly emphasizes the provision of long-term mortgages to the low- and middle-income population. It is essentially an expanded version of the National Housing Construction Loan Program started in 1973 and operated by KHB, but a separate fund distinct from KHB. NHF is directly answerable to MOC which determines its overall policies on the advice of the HB Policy Division. For administrative purposes, day-to-day management of the Fund has been delegated to the President of KHB and his designated staff.

4.3 Under the two projects, KLDC, KNHC and (under Loan 2216) NHF were strengthened through the provision of technical assistance and training. Prior to the projects, KLDC (which was established only in 1979) relied heavily on local consultants for project preparation and construction supervision, and itself carried out only planning and site selection. As a result of the projects, KLDC developed procedures for site evaluation and selection based on financial and economic criteria, enhanced its project supervision capabilities, began to develop a capacity to undertake project feasibility studies, and strengthened its decision-making capacity, financial management, corporate planning and data management capability, the latter through computerization. As a result, its reliance on consultant assistance decreased.

4.4 Project assistance to KNHC, particularly with respect to monitoring and evaluation, resulted in the introduction of various analytical procedures, including a post-project implementation survey by which to evaluate project effectiveness and impact. In 1986, KNHC surveyed the households that had benefitted from its construction program and used the collected data in planning subsequent projects and in reviewing ongoing works.

4.5 Coordination between KLDC and KNHC in the selection of housing sites and the allocation of low-income areas within sites was not always satisfactory and some sites developed by KLDC were not considered marketable by KNHC. This was due to inherent differences in the roles of the two organizations, one specializing in the development of land at the lowest cost possible and the other requiring sites for affordable, marketable low-income housing. Part of this problem was also due to the Liaison Committee's lack of a clearly defined role and authority which would enable it to coordinate activities effectively. Under Loan 1980, 9 of the 13 sites developed by KNHC were provided by KLDC, and under Loan 2216, 10 of the 12 sites were KLDC's. The remaining sites were developed by KNHC itself. Despite the disagreements, however, the Liaison Committee established under the projects represented a valuable start to instituting a more effective working arrangement for the two agencies.

4.6 At appraisal, it had been envisaged that the then newly created NHF would become a financially viable independent institution, with its own project appraisal and supervision capabilities to serve the public housing programs. Although NHF was not developed as an independent financial intermediary, the Government has used it to channel public funds to lower-cost housing in a manner which maintains NHF's financial viability. The plan to build an independent project appraisal and supervision capability in NHF was not pursued since those services were provided on a fee basis by KHB. At the outset, NHF's clientele were not sufficiently distinguished from those of the market-oriented housing bank, KHB. However, the Government has gradually lowered the maximum unit size for NHF financing from 25.7 py to the present 18 py while maintaining a higher limit of 30 py for KHB financing. This has significantly increased the targetting of NHF funds to both public and private low-income housing projects.

## V. FINANCIAL PERFORMANCE

### A. Korea Land Development Corporation

5.1 As a newly established institution, KLDC's growth was impressive. During 1981-85, its total assets grew by 33% p.a. and its profitability improved (Table 2). At the same time, its current ratio, i.e., the ratio of current assets to current liabilities, declined from 1.62 in 1981 to 0.20 in 1985 due to cash flow problems. In 1980, KLDC raised funds by issuing non-business debentures, with repayment of principal and interest due five years after issuance. Thereafter, KLDC generally had sufficient capital but faced an acute shortage of funds in 1985 when repayment was due. Its level of current assets also suffered in 1984-85 due to the sluggishness of land sales during a recessionary period in real estate. KLDC was, however, able to manage this problem. During the project period, KLDC's profitability increased in terms of both the ratio of operating revenue to total assets and the ratio of net income to capital, which averaged 0.24 and 0.10, respectively, during 1981-85. Financial briefs for KLDC as well as the other implementing agencies are shown in Annex 8.

Table 2: SUMMARY OF FINANCIAL PERFORMANCE OF KLDC

	1981	1982	1983	1984	1985
Current assets/current liability	1.62	0.68	0.44	0.24	0.20
Long-term liability/capital	0.88	1.24	1.21	1.17	0.81
Operating revenues/total assets	0.16	0.25	0.18	0.22	0.39
Net income/capital	0.03	0.01	0.05	0.12	0.31

### B. Korea National Housing Corporation

5.2 During the implementation period, KNHC's financial situation remained fairly stable. Although its current ratio declined after 1984, its working capital was still adequate. Current assets grew by 51% p.a. until 1985 when they dropped dramatically owing to poor sales during the real estate recession. During 1982-86, the ratio of operating revenue to total assets averaged 0.31, while the ratio of net income to capital averaged 0.10 (Table 3).

**Table 3: SUMMARY OF FINANCIAL PERFORMANCE OF KNHC**

	1982	1983	1984	1985	1986
Current assets/current liability	1.54	2.53	3.80	1.97	1.83
Long-term liability/capital	1.77	1.95	2.45	2.78	2.42
Operating revenues/total assets	0.40	0.38	0.30	0.21	0.27
Net income/capital	0.13	0.17	0.09	0.03	0.10

**C. National Housing Fund**

5.3 Since its inception in 1981, NHF's assets grew rapidly, quadrupling to W 2,853 billion in 1986. During 1982-86, its assets increased by an average 30.2% p.a., peaking in 1984 when they grew by 56.8%. NHF's capital base is derived from government contributions, retained earnings, lottery profits and other lesser sources. Its capital base is particularly important since NHF's assets are almost entirely 20-year graduated payment mortgage loans, while its major sources of funds such as bonds and savings deposits have maturities of five years or less and represent nearly 80% of total liabilities. The average ratio of long-term liability to capital averaged 14.6 during 1982-85, but dropped to 8.68 in 1986 when the Government increased its contribution to the Fund by Won 100 billion (Table 4).

**Table 4: SUMMARY OF FINANCIAL PERFORMANCE OF NHF**

	1982	1983	1984	1985	1986
Long-term liability/capital	10.40	12.71	18.71	16.59	8.68
Operating revenues/total assets	0.09	0.07	0.08	0.09	0.09
Net income/capital	-0.02	-0.23	-0.09	0.14	0.15

5.4 While Loan 2216 helped to improve NHF's financial position by being a long-term borrowing with repayment over 15 years, the loan provided only 2% of NHF's total funds. But with low-cost sources of funds, particularly housing bonds which paid 3-5% interest p.a., and 89% of its portfolio comprised of housing loans yielding 10% p.a., NHF has had a positive spread, averaging 1.8% since 1981. Overall, NHF was able to improve its profitability during the project period.

**D. Cost Recovery and Affordability**

5.5 The actual cost of land development was recovered by KLDC, which sold the commercial and middle-income residential plots at market prices which



cross-subsidized land sold to KNHC for low-income housing. The cost of housing construction was also fully reflected in house prices and was recovered from the home buyers.

5.6 Project housing and land for public facilities were sold at cost. Housing mortgages were issued upon receipt of a 35% downpayment (40% under the second project) from the low-income house purchasers, with the balance to be paid over 20 years at the prevailing KHB or NHF interest rate for low-income house purchases. This rate was 15.5% when the first project was appraised and 10% when the second project was appraised. House prices were based on the assumption that families in the target group could afford to spend about 30% of their monthly income on housing, excluding utilities and taxes. Using this criterion and the urban household income distribution shown in Annex 9, KNHC estimates that 49% of the housing units constructed under Loan 1980 were affordable to families below the 19th percentile; 34% to the 20th to 29th percentiles; and 17% to the 30th-39th percentiles. The project may therefore have reached much further down in the income distribution than originally expected. As indicated in Table 5, the same held true for the second project.

**Table 5: INCOME DISTRIBUTION OF PROJECT HOUSING (%)**

Income Distribution Percentiles	Loan 1980		Loan 2216	
	Planned	Actual	Planned	Actual
1-19	-	49	30	35
20-29	35	34	) 50	43
30-39	50	17	)	15
40-50	15	-	20	7

## VI. ECONOMIC RE-EVALUATION

### A. Original Estimate

6.1 The principal justification for the projects was in terms of their ability to ameliorate the housing shortage in the project cities, to provide employment opportunities in the construction sector and to strengthen institutions in the housing sector. At appraisal, the imputed rental values of the dwellings to be constructed in the various cities and the estimated market values of the serviced commercial and open market land were used to measure the benefits of the projects. Estimates of rental values were based on current rents charged by KNHC and the private sector for similar housing units in the project cities. Estimates of land values were based on market surveys conducted in 1981 by land assessors of adjacent parcels of land similar to the sites to be developed. Land and development, infrastructure, housing and recurrent (maintenance) costs were considered in the analysis,

with all taxes excluded. Shadow prices, applicable only to unskilled labor which constituted a minor fraction of total construction costs, were judged not to have a major impact on the rates of return and hence were not considered. The appraised economic rates of return (ERR) were 16.5% for the first project, and 12.5% for the second project. The considerable difference in the ERRs between projects was largely attributable to a continuing rise in land development and housing construction costs and virtual stagnation in sales prices of land and housing.

### B. Re-evaluation

6.2 The re-evaluated ERRs are 14.2% for the first project and 22.4% for the second project. Details of the re-evaluation are given in Annex 10. The ERR recalculation was based on a comparison of the actual cost of providing the project housing and the market value of that housing as assessed at the end of 1987, discounted to the time of completion using housing inflation data. Perhaps more significant than the ERRs themselves is the variation among the re-evaluated ERRs for each specific site, which is much greater than the estimated variation (Table 6). This is probably due to the major effect of location on the market value of a house, buttressed to some extent by the particular conditions prevailing when the market value was assessed. Thus the re-evaluated ERRs reflect actual experience rather than the more aggregated measures used to compute a priori ERRs.

**Table 6: ESTIMATED AND ACTUAL ERRs  
(%)**

Implementation sites	Appraisal ERR	Re-evaluated ERR
<u>Loan 1980</u>		
Average	16.5	14.2
Suwon-Gwonson I	13.0	41.7
Chongju-Shinbong I	18.0	41.6
Changwon-Myonggok	16.5	4.8
Pohang- Jangsung	14.0	15.0
Chungju-Cohyon	22.0	3.2
Chonan-Shinbu	15.0	22.2
Gwangju-Songjong	18.5	1.6
<u>Loan 2216</u>		
Average	12.5	22.4
Anyang-Sanbon	14.0	17.4
Suwon-Gwonson II	14.6	25.7
Kangneung-Noam	11.0	1.5
Daejon-Yongwoon	11.8	16.5

## **VII. CONCLUSIONS AND LESSONS LEARNED**

### **A. Conclusions**

7.1 The objectives of both projects were to increase KLDC's capacity to carry out large-scale site development and to enable KNHC to construct housing for the low-income population. To this end, KLDC developed sites covering a total of about 4.6 million py, substantially exceeding the original target, and KNHC supplied 18,744 housing units to the lower level of the targeted income group living in small and medium cities throughout the country. Project-supported housing comprised 3.4% of the 549,000 units constructed by the public sector during the Fifth Five-Year Plan period (1982-86) and contributed to the more balanced development of the regions and easing of the housing shortage.

7.2 As a result of experience gained under the projects, the executing agencies are now capable of handling programmatic type operations which allow them more flexibility in implementation. Thus, KLDC is now implementing the Urban Land Development Project (Loan 2704-KO) covering about 1.2 million py and NHF is involved in the Housing Finance Sector Project (Loan 2853-KO) to support the provision of long-term financing for the sector. Therefore, the project can be considered a success both in terms of the physical implementation and the institutional and policy development goals set forth.

### **B. Lessons Learned**

7.3 The following lessons were learned under the project:

- (a) very specific implementation guidelines and standards are unnecessary and may even be counterproductive when the executing agencies have developed adequate capabilities for the tasks at hand. In these projects, specifications for the housing mix and unit size were overly strict and caused delays to implementation while KNHC carried out studies to substantiate its request for changes. Thus, when dealing with experienced agencies like KLDC and KNHC, sector rather than project loans may be advisable;
- (b) strong motivation is important to the success of implementation, as evidenced by KLDC whose firm commitment to developing its capacities led it to significantly surpass its project targets;
- (c) new concepts in project design should be introduced only after local circumstances are studied and found suitable. The concept of expandable core housing, which had proved successful in other countries was not fully tested in Korea prior to project implementation and proved unacceptable; and
- (d) responsibilities under a project should be clearly delineated. Due to vague descriptions of project coordinating responsibilities and decision-making authority, coordination by the projects' Liaison Committees was not always successful.

KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Comparison of Project Implementation Sites

Site	Land development		Housing construction	
	Planned	Actual	Planned	Actual
<u>Loan 1980-KO</u>				
Suwon-Gwonson I	X	X	X	X
Chonan-Shinbu	X	X	X	X
Chonan-Daga	-	-	-	X
Chongju-Shinbong I	X	X	X	X
Gwangju-Songjong	X	X	X	X
Gwangju-Yomju	-	X	-	X
Changwon-Myonggok	X	X	X	X
Pohang-Jangsung	X	X	X	X
Chungju-Gohyon	X	X	X	X
Daejeon-Gao	-	-	-	X
Daejeon-Wadong	-	-	-	X
Jechon-Chongjon	X	X	X	-
Busan-Manduck	X	X	X	-
(replacing Kunsan)				
Chongju-Shinbong II	-	X	-	X
Seoul-Goduk	-	X	-	-
Yechon-Ssangbong	X	X	X	-
Donghae-Chongok	-	-	-	X
(17 Sites)	(10 sites)	(13 sites)	(10 sites)	(13 sites)
<u>Loan 2216-KO</u>				
Anyang-Sanbon	X	X	X	X
Suwon-Gwonson II	X	X	X	X
Daejeon-Yongwoon	X	X	X	X
Daejeon-Jungri	X	X	X	X
Kangneung-Noam	X	X	X	X
Chuncheon-Hupyeong	X	X	X	X
Buchon-Shimgok	X	X	X	X
Euijongbu-Ganeung	X	X	X	X
Chongju-Bongmyong	X	X	X	X
Koyang-Wondang	-	-	-	X
Chongju-Woonchon	X	X	X	X
Sunchon-Jorae	-	-	-	X
Kimhae-Naidong	X	X	X	-
Daegu-Woelbae	X	X	X	-
Busan-Mora	X	X	X	-
Jonju-Hyoja	X	X	X	-
Gwangju-Bongsun	-	X	-	-
Kimhae-Sambong	-	X	-	-
(18 Sites)	(14 sites)	(16 sites)	(14 sites)	(12 sites)

**FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)**

## PROJECT COMPLETION REPORT

### Estimated and Actual Project Implementation Schedules

Site	Activity	1980				1981				1982				1983				1984				1985				1986			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
(First Project)																													
Swon	Land Acquisition/Sale																												
-Gwonson	-planned					.....				_____																			
	-actual					.....				_____																			
	Land Development																												
	-planned					.....				_____																			
	-actual					.....				_____																			
	Housing Construction																												
	-planned					.....				_____																			
	-actual					.....				_____																			
Chonan	Land Acquisition/Sale					.....				_____																			
-Shinbu	-planned					.....				_____																			
	-actual					.....				_____																			
	Land Development																												
	-planned					.....				_____																			
	-actual					.....				_____																			
	Housing Construction																												
	-planned					.....				_____																			
	-actual					.....				_____																			
Chonan	Land Acquisition																												
-Daga	-actual																	.....											
	Housing Construction																												
	-actual																	.....											
Chongju	Land Acquisition/Sale																												
-Shinbong I	-planned					.....				_____																			
	-actual					.....				_____																			
	Land Development																												
	-planned					.....				_____																			
	-actual					.....				_____																			
	Housing Construction																												
	-planned					.....				_____																			
	-actual					.....				_____																			
Guangju	Land Acquisition/Sale																												
-Songjong	-planned					.....				_____																			
	-actual					.....				_____																			
	Land Development																												
	-planned					.....				_____																			
	-actual					.....				_____																			
	Housing Construction																												
	-planned					.....				_____																			
	-actual					.....				_____																			

•••••

**Abstract**

Site	Activity	1980				1981				1982				1983				1984				1985				1986			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Joshen	Land Acquisition/Sale																												
-chengjon	-planned					.....																							
	-actual					.....																							
	Land Development																												
	-planned					.....																							
	-actual					.....																							
Busan	Land Acquisition/Sale																												
-Manduk	-planned									.....																			
	-actual									.....																			
	Land Development																												
	-planned					.....																							
	-actual					.....																							
Chongju	Land Acquisition/Sale																												
-Shinsong II	-actual					.....																							
	Land Development																												
	-actual					.....																							
	Housing Construction																												
	-actual																												
Seoul	Land Acquisition/Sale																												
-Geduk	-actual					.....																							
	Land Development																												
	-actual					.....																							
Yechon	Land Acquisition/Sale																												
-Seungbong	-planned					.....																							
	-actual					.....																							
	Land Development																												
	-planned					.....																							
	-actual					.....																							
Donghae	Land Acquisition/Sale																												
-Chengok	-actual																												
	Housing Construction																												
	-actual																												
(Second Project)																													
Anyong	Land Acquisition/Sale																												
-Sarobon	-planned									.....																			
	-actual									.....																			
	Land Development																												
	-planned									.....																			
	-actual									.....																			
	Housing Construction																												
	-planned																												
	-actual																												

Site	Activity	1980	1981	1982	1983	1984	1985	1986
Suwon	Land Acquisition/Sale							
	-Garrison II -planned							
	-actual							
	Land Development							
	-planned							
	-actual							
	Housing Construction							
	-planned							
Deejon	Land Acquisition/Sale							
	-Yongsan -planned							
	-actual							
	Land Development							
	-planned							
	-actual							
	Housing Construction							
	-planned							
Deejon	Land Acquisition/Sale							
	-Jungri -planned							
	-actual							
	Land Development							
	-planned							
	-actual							
	Housing Construction							
	-planned							
Kangneung	Land Acquisition/Sale							
	-Hosan -planned							
	-actual							
	Land Development							
	-planned							
	-actual							
	Housing Construction							
	-planned							
Chungcheong	Land Acquisition/Sale							
	-Bupyeong -planned							
	-actual							
	Land Development							
	-planned							
	-actual							
	Housing Construction							
	-planned							
	-actual							



Site	Activity	1980				1981				1982				1983				1984				1985				1986			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Buchon -Shimgok	Land Acquisition/Sale																												
	-planned																												
	-actual																												
	Land Development																												
	-planned																												
	-actual																												
	Housing Construction																												
	-planned																												
	-actual																												
	Euijongbu -Gangung	Land Acquisition/Sale																											
-planned																													
-actual																													
Land Development																													
-planned																													
-actual																													
Housing Construction																													
-planned																													
-actual																													
Chongju -Bongmyong		Land Acquisition/Sale																											
	-planned																												
	-actual																												
	Land Development																												
	-planned																												
	-actual																												
	Housing Construction																												
	-planned																												
	-actual																												
	Koyang -Wondang	Land Acquisition/Sale																											
-actual																													
Housing Construction																													
-actual																													
Chongju -Moonchon		Land Acquisition/Sale																											
		-planned																											
		-actual																											
		Land Development																											
		-planned																											
		-actual																											
	Housing Construction																												
	-planned																												
	-actual																												

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KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Land Development  
('000 pyung)

Site	Grand total	Residential area			Commer- cial	Public use /a
		Sub- total	Low income	Middle income		
<b>Loan 1980-KO</b>						
Changwon-Myonggok	133.8	63.1	29.9	33.2	11.8	58.9
Yechon-Seangbong	71.2	42.0	26.9	15.1	1.2	28.0
Pohang-Jangchung	36.3	31.8	17.2	14.6	1.6	22.9
Gwangju-Songjong	197.2	139.4/b	118.5	20.6	7.7	50.0
Jaechon-Chongjon	48.5	31.9	13.9	18.0	1.6	15.0
Chongju-Shinbong I	127.1	85.0	16.9	68.1	5.7	36.4
Chungju-Gohyon	55.8	35.8	17.8	18.0	1.8	18.2
Chonan-Shinbu	117.6	78.2	15.7	62.5	2.1	37.3
Suwon-Gwonsan I	218.4	131.4	26.0	105.4	15.6	71.4
Suwon-Manduk	167.1	106.3	64.1	42.2	3.4	57.4
Gwangju-Yonju	161.6	119.2	60.0	59.2	2.1	40.3
Chongju-Shinbong II	157.5	110.0	20.5	89.5	2.0	45.5
Seoul-Goduk	967.7	561.6	286.7	274.9	42.3	363.8
<b>Total</b> (8)	<b>2,479.8</b> (100.0)	<b>1,535.7</b> (61.9)	<b>714.4</b> (28.8)	<b>821.3</b> (33.1)	<b>98.9</b> (4.0)	<b>845.2</b> (34.1)
<b>Loan 2216-KO</b>						
Anyang-Sanbea	125.1	87.8	46.7	41.1	-	37.3
Jonju-Hyoja	166.6	116.1	57.3	58.8	1.5	49.0
Suwon-Gwonsan II	218.4	134.9	58.1	76.8	3.9	79.6
Kangnung-Hoon	19.9	15.4	5.9	9.5	0.3	4.2
Kinhee-Kaidong	113.1	73.5	28.6	44.9	2.3	37.3
Daegu-Hoibae	199.3	137.3	55.8	81.5	3.1	58.8
Euijongbu-Ganeung	37.5	23.8	14.3	9.5	0.7	13.0
Bucheon-Shingok	39.5	22.8	18.2	4.6	0.3	16.4
Chongju-Bongmyong	105.8	60.5	24.1	36.4	2.7	42.6
Daejeon-Yongwoon	146.8	100.2	32.1	68.1	2.0	44.6
Chongju-Heonchon	209.0	119.1	45.5	73.6	2.8	87.1
Gwangju-Bongsan	70.2	50.6	28.3	22.3	2.1	17.5
Daejeon-Jungri	239.9	123.2	43.6	79.6	4.9	111.8
Chuncheon-Huppyong	75.2	48.2	16.2	22.0	1.4	25.6
Busan-Hora	205.9	98.2	15.0	83.2	3.3	104.4
Kinhee-Sambong	106.7	64.6	20.3	44.3	0.4	41.7
<b>Total</b> (8)	<b>2,078.8</b> (100.0)	<b>1,276.2</b> (61.4)	<b>510.0</b> (24.5)	<b>766.2</b> (36.9)	<b>31.7</b> (1.5)	<b>770.9</b> (37.1)

/a Public use means use for roads, parks, etc.

/b Includes a site for displaced people (93.3 thousand pyong).

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## KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

## PROJECT COMPLETION REPORT

## Housing Construction /a

Site	Total built	Style and size											
		Core house			Row house		Apartment						
		8p	10p	12p	10p	15p	13p	14p	15p	16p	17p	19p	20p
<b>Loan 1980-KO</b>													
Suwon-Gwonsan I	1,166	-	148	-	44	44	-	48	-	417	-	465	-
Chonan-Shinbu	756	20	24	24	64	244	260	-	40	-	80	-	-
Chongju-Shinbong I	294	-	-	86	-	168	-	-	-	-	40	-	-
Guangju-Yomju	1,118	-	-	-	-	68	-	31	-	329	330	360	-
Chonan-Daga	380	-	-	-	-	-	-	-	-	-	211	-	169
Guangju-Songjong	952	-	-	104	-	348	-	-	270	-	230	-	-
Changwon-Hyonggok	1,404	-	-	126	-	448	-	-	450	-	380	-	-
Pohang-Jangseung	720	-	-	72	-	228	-	-	220	-	200	-	-
Chungju-Gohyon	250	-	-	90	-	-	-	-	30	-	130	-	-
Daejeon-Gao	466	-	-	-	-	-	-	27	-	203	-	230	-
Daejeon-Wadong	570	-	-	-	-	-	-	-	-	-	312	-	258
Donghae-Chongok	270	-	-	-	-	-	-	16	-	119	-	135	-
Chongju-Shinbong II	280	-	-	-	-	-	-	-	180	-	100	-	-
<b>Total</b> <b>(2)</b>	<b>8,620</b> <b>(100)</b>	<b>20</b> <b>(0)</b>	<b>172</b> <b>(2)</b>	<b>502</b> <b>(6)</b>	<b>108</b> <b>(1)</b>	<b>1,548</b> <b>(18)</b>	<b>260</b> <b>(3)</b>	<b>122</b> <b>(1)</b>	<b>1,190</b> <b>(14)</b>	<b>1,068</b> <b>(12)</b>	<b>2,013</b> <b>(23)</b>	<b>1,190</b> <b>(14)</b>	<b>427</b> <b>(5)</b>
<b>Loan 2216-KO</b>													
Anyang-Saebon	1,728	-	-	-	-	438	-	65	-	580	-	645	-
Suwon-Gwonsan II	758	-	-	-	-	158	-	33	-	267	-	300	-
Daejeon-Yongwoon	1,130	-	-	-	-	270	-	41	-	389	-	430	-
Daejeon-Jungri	1,100	-	-	-	-	-	446	-	334	-	181	-	139
Kangneung-Noam	240	-	-	-	-	-	-	14	-	106	-	120	-
Chuncheon-Bupyeong	708	-	-	-	-	168	-	29	-	241	-	270	-
Buchon-Shingok	220	-	-	-	-	-	-	-	-	-	118	-	102
Euijongbu-Gaeseung	434	-	-	-	-	54	100	-	-	-	152	-	128
Chongju-Bongmyong	556	-	-	-	-	106	90	-	-	-	198	-	162
Koyang-Wondang	1,720	-	-	-	-	-	640	-	320	-	430	-	330
Chongju-Woonchon	1,200	-	-	-	-	-	388	-	242	-	310	-	260
Sunchon-Jorae	330	-	-	-	-	-	-	-	-	-	179	-	151
<b>Total</b> <b>(2)</b>	<b>10,124</b> <b>(100)</b>	<b>-</b> <b>(0)</b>	<b>-</b> <b>(0)</b>	<b>-</b> <b>(0)</b>	<b>-</b> <b>(0)</b>	<b>1,194</b> <b>(12)</b>	<b>1,664</b> <b>(16)</b>	<b>182</b> <b>(2)</b>	<b>896</b> <b>(9)</b>	<b>1,583</b> <b>(16)</b>	<b>1,568</b> <b>(15)</b>	<b>1,765</b> <b>(17)</b>	<b>1,272</b> <b>(13)</b>

/a "p" means pyung.

KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Housing Construction by Type and Size

Type	Size (pyung)	<u>Loan 1980-KO</u>		<u>Loan 2216-KO</u>	
		<u>Planned</u>	<u>Actual</u>	<u>Planned</u>	<u>Actual</u>
One-story core house	8	1,717	20	-	-
	10	1,717	172	-	-
	12	-	502	1,010	-
	<b>Subtotal</b>	<b><u>3,434</u></b>	<b><u>694</u></b>	<b><u>1,010</u></b>	<b><u>-</u></b>
Two-story row house	10	1,244	108	-	-
	15	1,244	1,548	3,030	1,194
	<b>Subtotal</b>	<b><u>2,488</u></b>	<b><u>1,656</u></b>	<b><u>3,030</u></b>	<b><u>1,194</u></b>
Apartment	13	2,642	260	-	1,664
	14	-	122	-	182
	15	-	1,190	3,030	896
	16	-	1,068	-	1,583
	17	-	2,013	3,030	1,568
	19	-	1,190	-	1,765
	20	-	427	-	1,272
	<b>Subtotal</b>	<b><u>2,642</u></b>	<b><u>6,270</u></b>	<b><u>6,060</u></b>	<b><u>8,930</u></b>
	<b>Total</b>	<b><u>8,564</u></b>	<b><u>8,620</u></b>	<b><u>10,100</u></b>	<b><u>10,124</u></b>

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FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Estimated and Actual Project Costs /a

	<u>Won million</u>		<u>US\$ million</u>	
	<u>Planned</u>	<u>Actual</u>	<u>Planned</u>	<u>Actual</u>
<u>Loan 1980-KO</u>				
<u>Land Development</u>				
Land acquisition	5,783	79,069	8.9	102.4
Land development	42,254	56,367	65.0	73.0
Other	27,175	5,532	41.7	7.2
Subtotal	<u>75,212</u>	<u>140,968</u>	<u>115.6</u>	<u>182.6</u>
<u>House Construction</u>				
Land cost	-	20,999	-	25.8
Building cost	54,449	74,656	83.8	91.6
Other	26,444	7,683	40.6	9.4
Subtotal	<u>80,893</u>	<u>103,338</u>	<u>124.4</u>	<u>126.8</u>
<u>GRAND TOTAL</u>	<u>156,105</u>	<u>244,306</u>	<u>240.0</u>	<u>309.4</u>
<u>Loan 2216-KO</u>				
<u>Land Development</u>				
Land acquisition	37,254	111,920	50.3	134.4
Land development	33,557	55,230	45.3	66.3
Other	12,325	1,770	16.7	2.1
Subtotal	<u>83,136</u>	<u>168,920</u>	<u>112.3</u>	<u>202.8</u>
<u>House Construction</u>				
Land cost	-	25,013	-	30.0
Building cost	115,914	100,598	156.6	120.8
Other	34,773	7,846	47.0	9.4
Subtotal	<u>150,687</u>	<u>133,457</u>	<u>203.6</u>	<u>160.2</u>
<u>GRAND TOTAL</u>	<u>233,824</u>	<u>302,377</u>	<u>316.0</u>	<u>363.0</u>

/a Exchange rate (Won in terms of US\$1):

<u>Date</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
December 31	660	701	749	796	827	890	861
Average	607	681	731	775	805	870	881

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FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Estimated and Actual Disbursements  
(US\$ million)

Fiscal year	Loan 1980-KO			Loan 2216-KO		
	Estimated	Actual	Profile	Estimated	Actual	Profile
<b>1982</b>						
Sep 1981	1.53	0.00	0.36			
Dec 1981	4.95	1.47	1.36			
Mar 1982	10.53	3.76	2.92			
Jun 1982	16.11	5.69	4.92			
<b>1983</b>						
Sep 1982	22.05	5.69	7.56			
Dec 1982	31.50	10.87	10.70			
Mar 1983	42.75	15.52	14.41	1.48	0.00	0.50
Jun 1983	52.20	15.52	18.55	3.00	1.48	1.90
<b>1984</b>						
Sep 1983	61.83	17.18	22.97	6.30	2.61	4.10
Dec 1983	70.83	26.98	27.61	12.30	3.41	6.90
Mar 1984	76.23	46.21	32.39	21.90	5.23	10.60
Jun 1984	67.33/a	46.21	37.10	31.50	7.06	15.00
<b>1985</b>						
Sep 1984	71.29/a	52.95	41.73	41.10	7.06	20.20
Dec 1984	75.50/a	60.40	46.01	50.70	34.53	26.00
Mar 1985	75.34/b	62.26	50.01	58.50	49.57	32.20
Jun 1985	75.34/b	64.15	53.65	66.20	52.16	38.70
<b>1986</b>						
Sep 1985	90.00	65.20	56.93	74.00	06.82	45.40
Dec 1985		68.42	59.85	81.70	69.34	52.00
Mar 1986		71.04	62.35	86.30	74.94	58.50
Jun 1986		71.33	64.56	90.90	77.03	64.50
<b>1987</b>						
Sep 1986			66.42	95.40	79.82	70.10
Dec 1986			68.06	100.00	88.40	75.20
Mar 1987			69.41		99.92	79.80
Jun 1987			70.84		100.00	83.90

/a Adjusted by subtracting the canceled amount in 1984 (US\$14.66 million).

/b Adjusted by subtracting the canceled amount in 1986 (US\$4.00 million).

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FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Disbursement of Loans by Category  
(US\$)

Category	Amount allocated in loan agreement	Amount disbursed
<u>Loan 1980-KO</u>		
<u>KLDC</u>		
Civil works, cement and steel	20,130,000	30,407,477
Consultant's services, studies and technical assistance	2,130,000	2,853,494
Staff training	150,000	129,127
Unallocated	10,980,000	0
Subtotal	<u>33,390,000</u>	<u>33,390,000</u>
<u>KNHC</u>		
Civil works, cement and steel	37,790,000	37,774,271
Consultant's services, studies and technical assistance	250,000	175,728
Staff training	150,000	0
Unallocated	18,420,000	0
Subtotal	<u>56,610,000</u>	<u>37,950,000</u>
<u>GRAND TOTAL</u>	<u>90,000,000</u>	<u>71,340,000</u>
Cancellation		18,660,000/a
<u>Loan 2216-KO</u>		
Civil works and materials	22,460,000	29,682,000
Subloans	55,770,000	68,541,000
Consultants' services and training	1,400,000	300,000
Fee	1,477,000	1,477,000
Unallocated	18,892,167	-
<u>GRAND TOTAL</u>	<u>100,000,000</u>	<u>100,000,000</u>

/a US\$14.66 million was canceled on May 4, 1984 and US\$4 million on March 19, 1986.



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FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Financial Briefs for KLDC, KNHC and NHF  
(Million won)

	1981	1982	1983	1984	1985
<u>KLDC</u>					
<u>Balance Sheet</u>					
<u>Assets</u>					
Current assets	99,160	107,618	98,870	69,827	54,234
Operational assets	260,806	619,102	745,690	910,245	1,100,821
Fixed assets	1,062	7,576	12,070	29,953	14,312
<u>Total Assets</u>	<u>361,028</u>	<u>626,678</u>	<u>757,760</u>	<u>940,198</u>	<u>1,115,133</u>
<u>Liabilities</u>					
Current liabilities	61,382	157,836	224,087	289,109	278,139
Long-term liabilities	140,496	259,883	292,012	351,096	375,553
<u>Total Liabilities</u>	<u>201,878</u>	<u>417,719</u>	<u>516,099</u>	<u>640,205</u>	<u>653,692</u>
<u>Capital</u>	<u>159,149</u>	<u>208,959</u>	<u>241,661</u>	<u>299,993</u>	<u>461,441</u>
<u>Income Statement</u>					
Operational revenues	56,611	153,869	139,055	206,086	431,498
Cost and expenses	41,892	127,187	107,060	139,076	228,030
<u>Gross Operating Income</u>	<u>14,719</u>	<u>26,682</u>	<u>31,995</u>	<u>67,010</u>	<u>203,468</u>
Interest paid	8,043	17,641	20,089	19,284	36,952
Taxes	1,282	7,119	1,018	10,583	21,464
<u>Net Income</u>	<u>5,394</u>	<u>1,906</u>	<u>10,888</u>	<u>37,133</u>	<u>145,052</u>

	1982	1983	1984	1985	1986
<b><u>KNHC</u></b>					
<b><u>Balance Sheet</u></b>					
<b><u>Assets</u></b>					
Current assets	234,001	478,944	605,243	809,467	837,757
Operational assets	795,171	836,575	1,021,372	1,313,709	1,468,038
Fixed assets	6,995	8,244	9,264	9,843	9,717
Deferred assets	26,752	30,880	24,740	34,156	24,162
<b><u>Total Assets</u></b>	<b><u>1,062,919</u></b>	<b><u>1,354,643</u></b>	<b><u>1,660,619</u></b>	<b><u>2,167,175</u></b>	<b><u>2,339,674</u></b>
<b><u>Liabilities</u></b>					
Current liabilities	151,893	189,652	159,141	411,156	456,606
Long-term liabilities	582,596	769,644	1,065,876	1,291,673	1,331,665
<b><u>Total Liabilities</u></b>	<b><u>734,489</u></b>	<b><u>959,296</u></b>	<b><u>1,225,017</u></b>	<b><u>1,702,829</u></b>	<b><u>1,788,271</u></b>
<b><u>Capital</u></b>	<b><u>328,430</u></b>	<b><u>395,347</u></b>	<b><u>435,602</u></b>	<b><u>464,246</u></b>	<b><u>551,403</u></b>
<b><u>Income Statement</u></b>					
Operational revenues	424,569	509,965	491,167	456,157	636,196
Cost and expenses	370,673	431,645	451,555	430,729	560,616
<b><u>Gross Operating Income</u></b>	<b><u>53,896</u></b>	<b><u>78,320</u></b>	<b><u>39,612</u></b>	<b><u>25,428</u></b>	<b><u>75,580</u></b>
Interest paid	293	51,228	75,023	92,777	109,594
Taxes	14,794	29,216	7,116	2,715	12,623
<b><u>Net Income</u></b>	<b><u>43,133</u></b>	<b><u>67,312</u></b>	<b><u>39,465</u></b>	<b><u>14,693</u></b>	<b><u>55,025</u></b>
<b><u>NHF</u></b>					
<b><u>Balance Sheet</u></b>					
<b><u>Assets</u></b>					
Cash	198,892	421,553	341,988	129,349	26,150
Loans	792,428	1,132,546	1,769,391	2,332,684	2,827,303
<b><u>Total Assets</u></b>	<b><u>991,320</u></b>	<b><u>1,554,099</u></b>	<b><u>2,111,379</u></b>	<b><u>2,462,033</u></b>	<b><u>2,853,453</u></b>
<b><u>Liabilities</u></b>					
Current liabilities	84,767	109,312	97,212	90,445	90,657
Long-term liabilities	829,379	1,339,376	2,006,921	2,236,724	2,410,022
<b><u>Total Liabilities</u></b>	<b><u>914,146</u></b>	<b><u>1,448,688</u></b>	<b><u>2,104,133</u></b>	<b><u>2,327,169</u></b>	<b><u>2,575,679</u></b>
<b><u>Capital</u></b>	<b><u>77,174</u></b>	<b><u>105,411</u></b>	<b><u>107,246</u></b>	<b><u>134,864</u></b>	<b><u>277,774</u></b>
<b><u>Income Statement</u></b>					
Revenues	87,845	109,714	168,710	218,971	247,137
Expenses	89,079	134,241	178,200	200,306	205,366
<b><u>Net Profit (Loss)</u></b>	<b><u>(1,234)</u></b>	<b><u>(24,527)</u></b>	<b><u>(9,490)</u></b>	<b><u>18,665</u></b>	<b><u>41,771</u></b>

KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

PROJECT COMPLETION REPORT

Urban Household Income Distribution  
(W'000)

Income bracket	1980	1981	1982	1983	1984	1985	1986
I	71.4	87.6	92.9	111.0	118.6	125.3	145.8
II	111.5	136.7	152.8	176.8	192.1	208.2	236.3
III	139.6	168.4	188.9	214.8	235.7	257.2	291.3
IV	163.9	196.0	218.7	251.5	277.1	296.8	335.0
V	187.7	223.8	249.8	284.9	315.2	335.9	380.9
VI	213.0	253.8	282.6	323.6	362.6	384.5	429.4
VII	244.6	289.3	324.6	374.5	417.7	443.0	497.8
VIII	285.8	340.6	379.7	442.2	494.7	524.7	589.3
IX	354.1	425.2	467.1	551.6	609.8	656.7	729.5
X	568.9	688.2	764.8	909.9	1,000.3	1,080.5	1,175.8

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## KOREA

FIRST AND SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECTS (LOANS 1980 AND 2216-KO)

## PROJECT COMPLETION REPORT

Re-evaluated Economic Rates of Return  
('000 Won)

Site	Type	Size (py)	No. of units	Input cost per unit (A)	Market value per unit (Dec 1987)	Value discounted by housing infla- tion rate (B) /a	ERR (B/A) (%)
<u>Loan 1980-KO</u>							
Suwon-Gwonsan I	Core house	10	148	7,429	12,500	10,317	38.9
	2-story row house	15	44	10,800	16,000	13,206	22.3
	Subtotal <u>b</u>		192	1,574,692		2,230,916	41.7
Donghae-Chengok	Apartment	14	16	10,658	12,200	11,152	4.6
		16	119	12,590	15,000	13,712	8.9
		19	135	15,183	17,000	15,540	2.4
	Subtotal		270	3,718,443		3,908,060	5.1
Chonan-Shinbu	Core house	8	20	5,900	9,500	7,841	32.9
		10	21	6,842	10,600	8,749	27.9
		12	24	8,668	13,200	10,895	25.7
	Row house	15	244	10,895	14,200	11,720	7.6
	Apartment	15	40	9,425	15,100	12,463	32.2
		17	80	10,897	18,500	15,269	40.1
		13	260	8,184	12,900	10,647	30.1
	Subtotal		692	6,525,220		7,976,216	22.2
Chengju-Shinbong I	Core house	12	86	9,270	15,900	13,123	41.6
	Subtotal		86	797,220		1,128,578	41.6
Changju-Gohyon	Apartment	15	30	10,914	13,000	11,122	1.9
		17	130	12,320	14,900	12,748	3.3
	Subtotal		160	1,929,020		1,990,900	3.2
Daejeon-Gao	Apartment	14	27	11,725	15,400	14,078	20.1
		16	203	13,833	17,500	15,997	15.6
		19	230	16,685	22,900	20,934	25.3
	Subtotal		460	6,962,224		8,442,317	21.3
Daejeon-Wadong	Apartment	17	312	15,055	18,900	17,528	16.4
		20	258	17,162	22,200	20,588	20.0
	Subtotal		570	9,124,936		10,780,440	18.1
Chonan-Doga	Apartment	17	211	14,346	19,500	18,084	26.1
		20	169	16,329	21,700	20,125	23.2
	Subtotal		380	5,786,607		7,216,849	26.7
Gwangju-Songjong	Apartment	15	270	9,123	11,000	9,166	0.3
		17	230	10,543	13,000	10,833	2.8
	Subtotal		500	4,888,100		4,966,410	1.6
Gwangju-Yonju	Apartment	14	31	11,448	13,000	11,626	1.6
		17	330	14,742	18,700	14,935	1.3
		19	360	16,258	18,600	16,634	2.3
	Subtotal		721	11,072,628		11,277,196	1.4
Pohang-Jangsung	Apartment	15	220	10,049	14,000	11,355	15.0
	Subtotal		220	2,210,780		2,542,100	15.0
Changwon-Hyonggok	Core house	12	126	8,661	11,000	9,079	-4.8
	Subtotal		126	1,091,286		1,143,954	4.9
Total			4,377	55,681,176		63,603,936	14.2

Site	Type	Size (py)	No. of units	Input cost per unit (A)	Market value per unit (Dec 1987)	Value discounted by housing inflation rate (B) /a	ERR (B/A) (%)
<b>Loan 2216-KO</b>							
Euijongbu-Gansung	Apartment	13	100	11,874	15,000	13,757	15.9
		15	54	13,478	16,500	15,132	12.3
		17	152	15,595	18,000	16,717	7.2
		20	128	17,790	21,000	19,260	8.3
	Subtotal		434	6,562,772		7,199,092	9.7
Koyang-Wondang	Apartment	17	256	16,136	23,000	21,429	32.8
		20	204	18,571	26,000	24,224	31.9
		13	640	12,314	18,000	17,012	83.2
		15	320	14,261	21,000	19,844	39.2
		17	174	16,175	23,000	21,738	34.4
	Subtotal		1,720	25,451,168		34,543,170	35.7
Anyang-Sanbon	Apartment	14	65	12,561	16,000	14,402	14.7
		16	380	15,039	20,000	18,003	19.7
		19	645	17,859	23,000	20,703	15.9
	Subtotal		1,290	21,058,140		24,731,305	17.4
Suwon-Gwoson II	Apartment	14	33	12,283	17,500	16,382	33.4
		16	267	15,204	21,000	19,658	29.3
		19	300	18,338	24,000	22,466	22.5
	Subtotal		600	21,058,140		24,731,305	25.7
Buchon-Shingok	Apartment	17	118	15,954	17,400	16,211	1.6
		20	102	18,770	21,200	19,751	5.2
	Subtotal		220	3,797,112		3,927,500	3.4
Kangneung-Woem	Apartment	16	106	12,350	13,800	12,383	0.3
		19	120	14,896	17,000	15,255	2.4
	Subtotal		226	3,096,620		3,143,198	1.5
Chunchon-Bupyeong	Apartment	14	29	10,944	14,000	12,879	17.7
		16	241	12,938	16,000	14,719	13.8
		19	270	15,601	21,200	19,503	25.0
	Subtotal		540	7,647,704		9,186,580	20.1
Daejeon-Yongwoon	Row house	15	270	12,779	17,200	15,482	21.2
		14	41	11,165	14,600	13,142	17.7
		16	389	13,135	17,800	16,022	21.8
		19	430	15,865	19,400	17,463	10.1
	Subtotal		1,130	15,847,340		18,460,610	16.5
Chongju-Bongmyong	2-story row house	15	16	12,927	16,800	15,455	19.6
		15	90	13,520	17,300	15,915	17.7
	3-story row house	13	90	11,329	14,700	13,523	19.4
		17	198	14,876	18,800	17,295	16.3
		20	162	16,945	19,000	17,479	3.2
	Subtotal		556	8,132,592		9,152,768	3
Chongju-Woonchon	Apartment	13	388	11,077	13,900	13,137	
		15	242	13,308	16,000	15,122	11.2
		17	310	15,050	18,500	17,484	16.2
		20	260	17,150	21,800	20,004	20.1
	Subtotal		1,200	16,642,912		19,533,760	17.2
Daejeon-Jungri	Apartment	13	446	11,601	14,800	13,988	21.2
		15	334	13,465	18,600	17,579	31.2
		17	181	15,254	19,700	18,619	22.1
		20	139	17,448	26,000	24,573	20.1
	Subtotal		1,100	14,857,602		18,895,720	22.2
Suncheon-Jorae	Apartment	17	179	13,543	15,000	14,041	3.7
	Subtotal		179	2,424,197		2,312,339	3.7
	Total		9,195	95,209,131		116,543,431	22.2

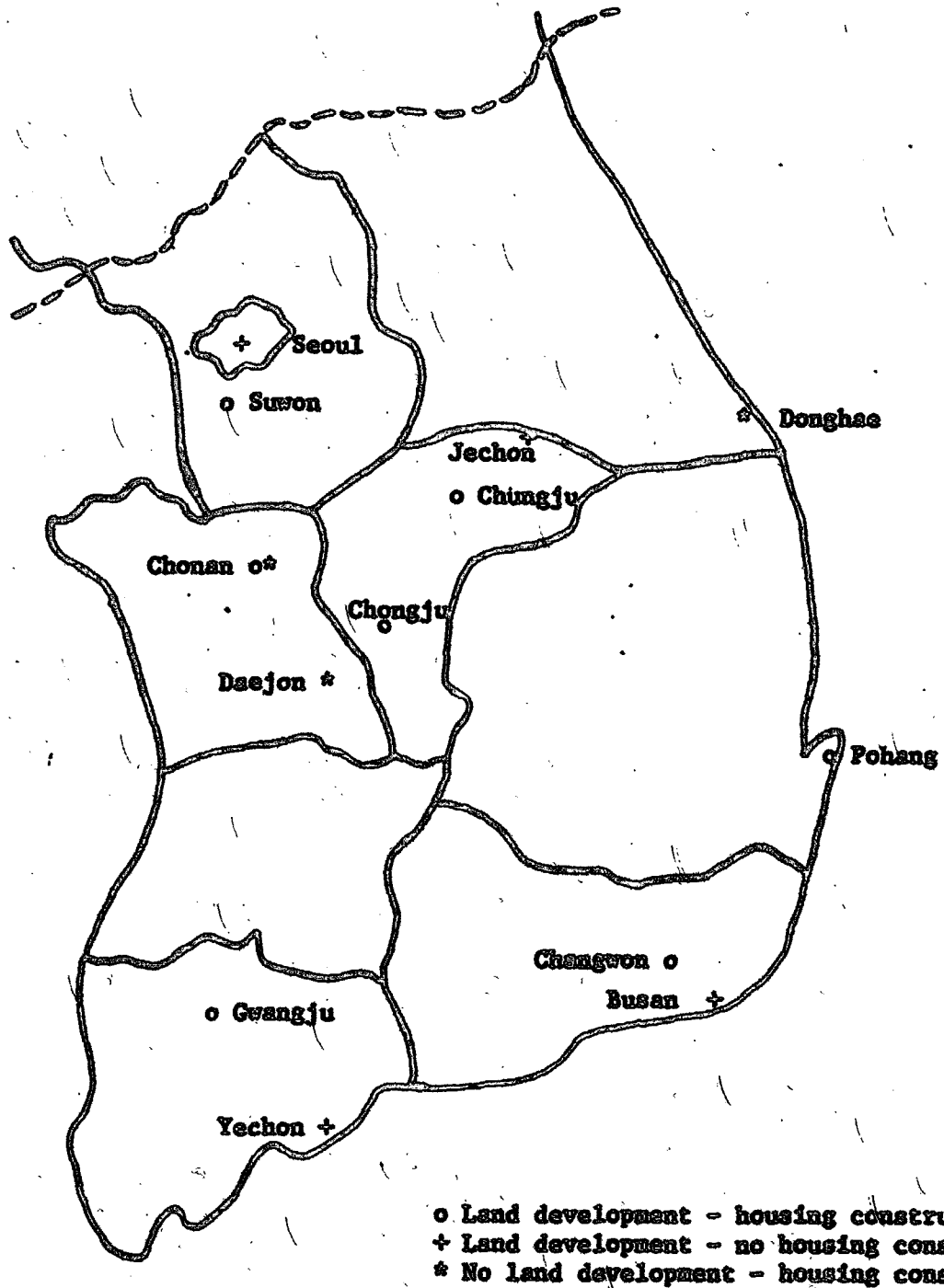
/a Housing inflation rates: 1982 - 8.6%; 1983 - 5.7%; 1984 - 6.7%; 1985 - 3.8%; 1986 - 2.9%; 1987 - 3.3%.  
/b Subtotal shows input cost of all subproject units and total subproject discounted value.

KOREA

NATIONAL URBAN LAND DEVELOPMENT AND  
HOUSING PROJECT (LOAN 1980-KO)

PROJECT COMPLETION REPORT

Project Sites

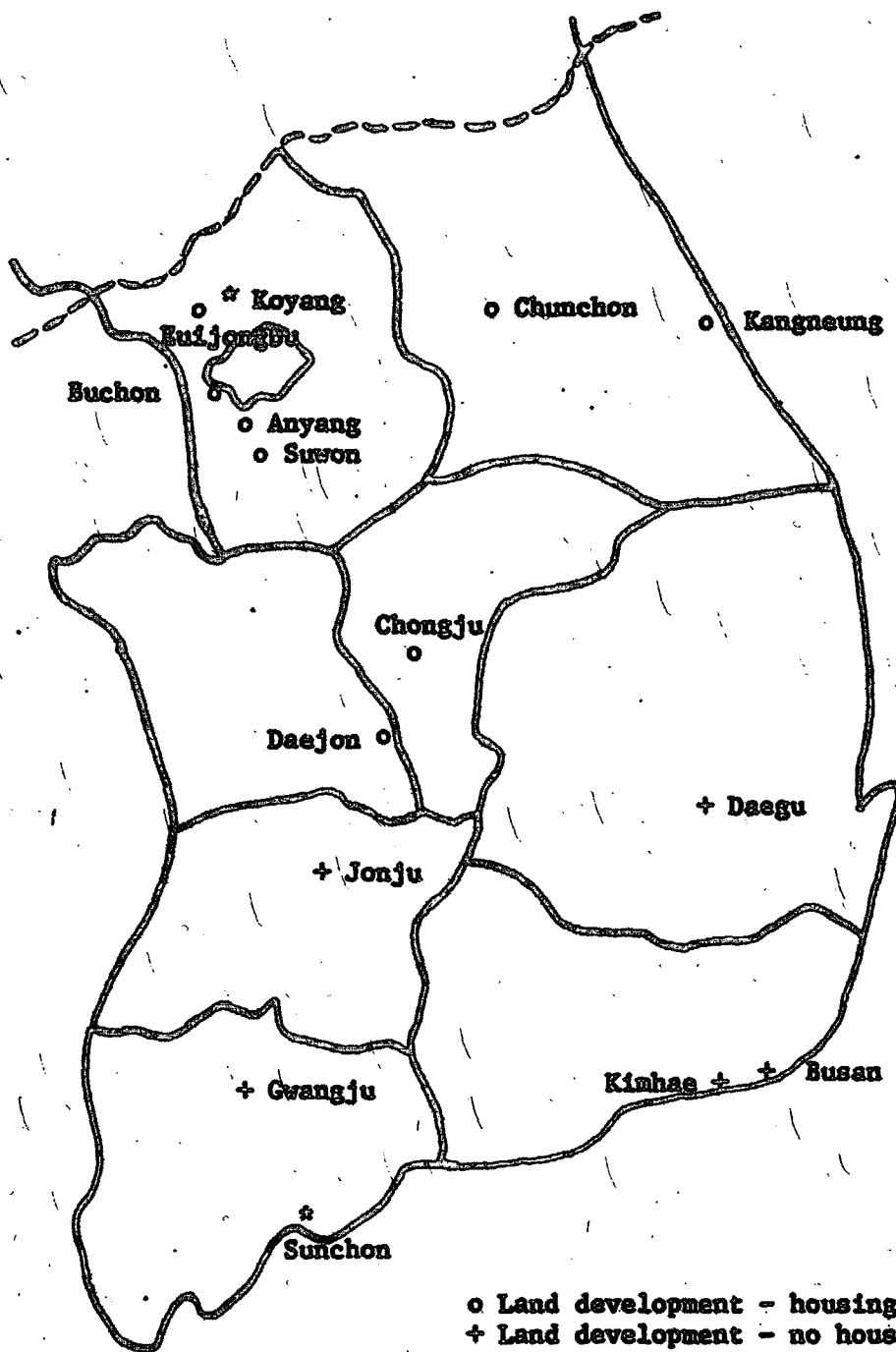


KOREA

SECOND NATIONAL URBAN LAND DEVELOPMENT  
AND HOUSING PROJECT (LOAN 2216-KO)

PROJECT COMPLETION REPORT

Project Sites



- o Land development - housing construction
- + Land development - no housing construction
- \* No land development - housing construction